Application No.: Not Yet Assigned Docket No.: G0365.0353/P353

REMARKS

This Preliminary Amendment is being filed in order to reduce the filing fee and to place the application in better form for examination. Applicants reserve the right to pursue the original claims and other claims in this application and in other applications. Favorable action on the present application is solicited.

Dated: March 1, 2002

Respectfully submitted,

By _____

Mark J. Thronson
Registration No. 33,082
DICKSTEIN SHAPIRO MORIN & OSHINSKY LLP
2101 L Street NW
Washington, DC 20037-1526
(202) 785-9700
Attorneys for Applicant

MARKED-UP VERSION SHOWING CHANGES MADE

3. (Amended) A polymer according to claim 1 [or 2], wherein R, R^2 and R^3 are selected from the group consisting of hydrogen, methyl, ethyl or propyl, preferably hydrogen.

4. (Amended) A polymer according to [any preceding] claim 1, wherein A is a carboxylic acid group.

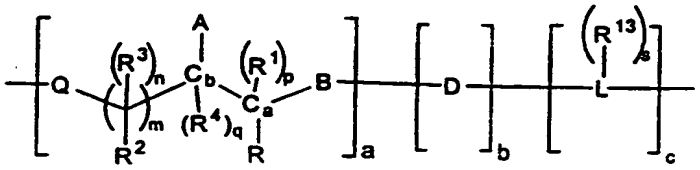
5. (Amended) A polymer according to [any preceding] claim 1, wherein B comprises an amide bond.

6. (Amended) A polymer according to [any preceding] claim 1, wherein Q comprises a carbonyl [funtionality] functionality.

7. (Amended) A polymer according to [any preceding] claim 1, wherein the polymeric backbone additionally comprises polymers selected from the group consisting of acrylic polymers, alkylene polymers, urethane polymers, amide polymers (including polypeptides), polysaccharides and ester polymers.

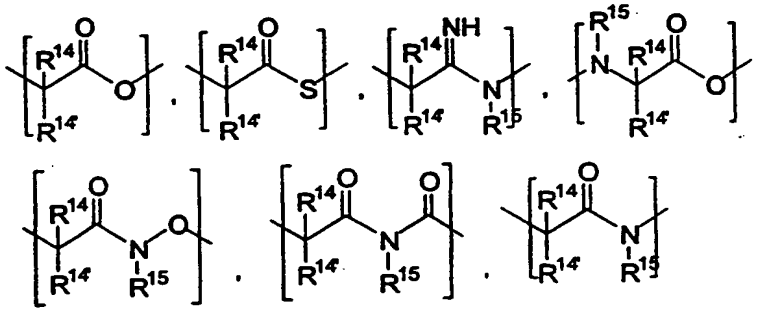
8. (Amended) A polymer according to [any preceding] claim 1, wherein the polymeric backbone comprises polymers selected from the group consisting of derivatised polyethyleneglycol and copolymers of hydroxyalkyl(meth)acrylamide, most preferably amine derivatised polyethyleneglycol or hydroxypropylmethacrylamide-methacrylic acid copolymers or amide or ester derivatives thereof.

9. (Amended) A polymer according to [any preceding] claim 1, wherein the polymeric backbone comprises the structure (II)

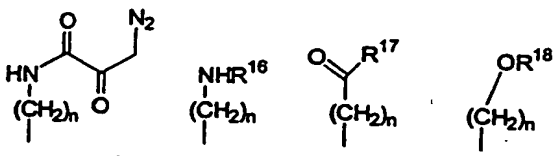


(II)

wherein A, B, Q, R-R^4, m, n, p and q are as defined in [any preceding] claim 1; L is a polymeric, oligomeric or copolymeric bridging group which comprises polymer selected from the group consisting of acrylic polymers, alkylene polymers, urethane polymers, polyethylene glycols, polyamides, polysaccharides and polyesters; a is an integer of 1 to 100000, b and c are integers of 0 to 100000 and s is an integer of 0 to 100; D comprises one or more structures individually selected from the group consisting of,



wherein R^{14} and $R^{14'}$ comprise groups individually selected from the same groups as defined for R or may comprise a structure selected from the group consisting of



wherein n is an integer of 0-100, R^{15} is selected from the group consisting of hydrogen and C_1-C_6 alkyl, R^{16} to R^{18} are individually selected from the group consisting of H, C_1-C_{12}

alkyl, C_1-C_{12} alkenyl, C_6-C_{18} aryl, C_7-C_{18} aralkyl, C_5-C_{18} cycloalkyl or is selected from the group consisting of C_1-C_{12} alkyl, C_1-C_{12} alkenyl, C_6-C_{18} aryl, C_7-C_{18} aralkyl, C_6-C_{18} cycloalkyl substituted, within the carbon chain or appended thereto, with one or more heteroatoms, a pendent group comprising a linker unit, for example a peptide linkage or a unit having the structure (I) or a leaving group; R^{13} is selected from the group consisting of H, C_1-C_{12} alkyl, C_1-C_{12} alkenyl, C_6-C_{18} aryl, C_7-C_{18} aralkyl, C_5-C_{18} cycloalkyl or is selected from the group consisting of C_1-C_{12} alkyl, C_1-C_{12} alkenyl, C_6-C_{18} aryl, C_7-C_{18} aralkyl, C_6-C_{18} cycloalkyl substituted, within the carbon chain or appended thereto, with one or more heteroatoms, R^{13} optionally incorporating a linker unit, for example a peptide linkage or a unit having the structure (I).

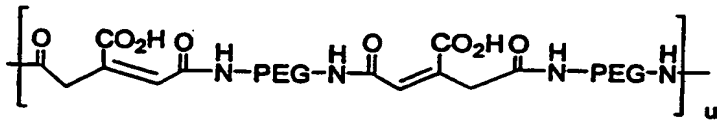
11. (Amended) A polymer according to claim 9 [or 10], wherein s is an integer of 1 to 10, preferably 1.

12. (Amended) a polymer according to claim 9[, 10 or 11], wherein at least one of R^{14} to R^{24} incorporates a cleavable bond, preferably a group (I) or one or more peptide bonds.

13. (Amended) A polymer according to [any preceding] claim 9, wherein the polymer is conjugated to a bioactive agent, preferably an anti cancer agent, most preferably, doxorubicin, daunomycin or taxol.

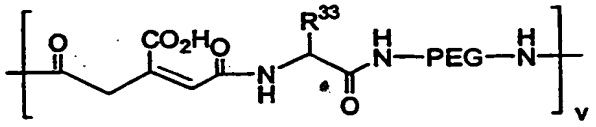
14. (Amended) A polymer according to [any preceding] claim 9, wherein the molecular weight is in the range 0.5kDa-400kDa.

15. (Amended) A polymer according to [any preceding] claim 9, having the structure



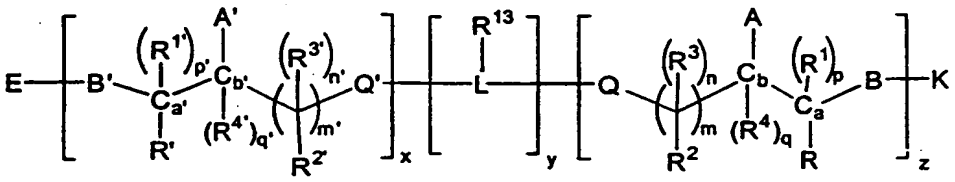
wherein PEG is a polyethylene glycol group, or derivative thereof, having a molecular weight in the range 500 Da-100kDa and u is an integer in the range of 1-10000.

16. (Amended) A polymer according to [any of claims] claim 1 [to 14], having the structure



wherein PEG is a polyethylene glycol group having a molecular weight in the range 500 Da-100kDa or derviative thereof, and u is an integer in the range of 1-10000.

17. (Amended) A prepolymer comprising the structure



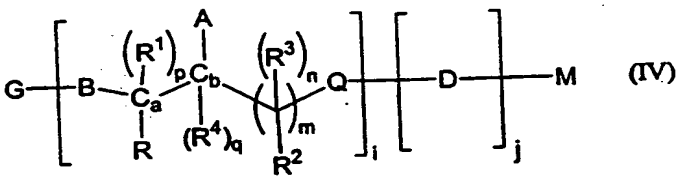
(III)

wherein A, B, Q, R-R^3, m, n, p and q are as defined in [any preceding] claim 9; R^{13} and L are as defined in [any of claims] claim 9 [to 16]; A', B', Q' R$^{1'}$-R$^{4'}$, m', n', p', and q' are selected from the groups as defined for A, B, Q, R^1-R^4, m, n, p and q respectively; E and K are selected from the group consisting of hydrogen, an activating group or a protecting

group and may be the same or different; z is an integer of 1 to 100, y is an integer of 0 to 10 and x is an integer of 0 to 100.

19. (Amended) A prepolymer according to claim 17 [or 18], wherein B and B' comprise a carboxyl group and E and K are selected from the group consisting of hydrogen, N-succinimidyl pentachlorophenyl, pentaflourophenyl, paranitrophenyl, dinitrophenyl, N-phthalimido, N-norbornyl, cyanomethyl, pyridyl, trichlorotriazine, 5-chloroquinoline, preferably hydrogen or N-succinimidyl.

20. (Amended) A prepolymer comprising the structure (IV)



(IV)

wherein A, B, Q, R-R^4, m, n, p and q are as defined in [any preceding] claim 9; D [si] is as defined in [any of claims] claim 9 [to 16]; G and M are selected from the group consisting of hydrogen, an activating group or a protecting group, i and j are integers of 1 to 10.

22. (Amended) A prepolymer according to claim 20 [or 21], wherein B and D comprise carboxylic acid groups and G and M are selected from the group consisting of hydrogen, N-succinimidyl pentachlorophenyl, pentaflourophenyl, para-nitrophenyl, dinitrophenyl, N-phthalimido, N-norbornyl, cyanomethyl, pyridyl, trichlorotriazine, 5-chloroquinoline, preferably hydrogen or N-succinimidyl.

24. (Amended) A method of selectively degrading a polymer comprising the steps of:

a) introducing a polymer as comprising a structure (I) or (II) as defined in [any preceding] claim 9, to an environment having a pH of less than 6.5,

b) cleaving said polymer.

25. (Amended) A method for releasing a bioactive agent comprising the steps of

a) introducing a conjugate comprising a structure (I) or (II) as defined in [any preceding] claim 9, and a bioactive agent to an environment having a pH of less than 6.5,

c) cleaving the bioactive agent from the linker group by acid or enzymic hydrolysis,

d) optionally additionally cleaving the polymer by acid or enzymic hydrolysis.

26. (Amended) A composition comprising at least one polymer as defined in [any of claims] claim 1 [to 16] and a carrier.

27. (Amended) A composition comprising at least one polymer as defined in [any of claims] claim 1 [to 16] and a pharmaceutically acceptable excipient.

28. (Amended) Use of a polymer as defined in [any of claims] claim 1 [to 16] as a pharmaceutical excipient.